POPULATION TODAY

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FROM THE EDITOR'S DESK

The age-adjusted death rate for the United States has dropped significantly over the last several decades – from 7.6 per 1,000 population in 1960 to 5.5 in 1985. During the same period, life expectancy at birth increased from 69.7 to 74.7 years. Encouraging numbers. And given adequate research funding, who knows how long human life expectancy could be. Life extension! Human immortality!

Now suppose we were so successful that only *one* rare cause of death remained in the U.S., e.g., "struck accidentally by falling object," Cause E-916 in the International Classification of Diseases. (Cause E-916 is mainly job-related; during the working ages it reaches 0.4 deaths per 100,000 people at that age; for those 85 and over, it drops to about 0.2 deaths.)

There's one hitch. Scientists still haven't agreed on the maximum human life span, which has to do with how long our cells will continue to reproduce themselves.

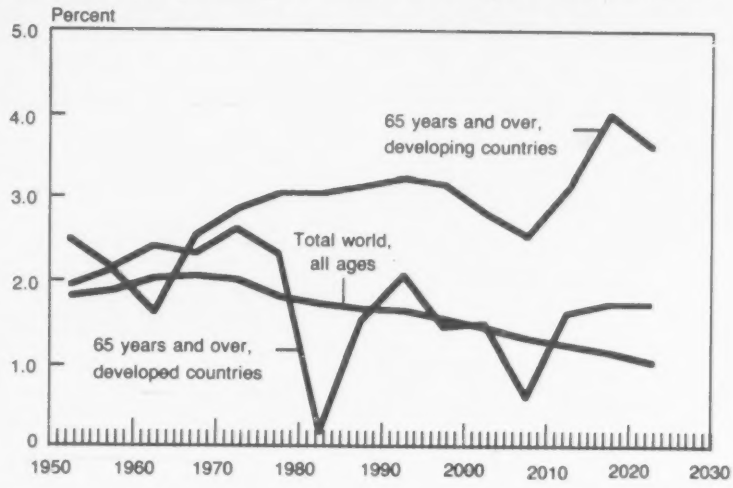
Right now, the human life span exceeds human life expectancy. If all causes of mortality but E-916 were eliminated, life *expectancy* would suddenly exceed life *span*. The biological clocks in any demographic cohort would stop ticking several hundred thousand years before the cohort could be wiped out by E-916's randomly falling objects (bricks, tree limbs, etc.).

Until the day science finds a way to persuade cells to replace themselves indefinitely, extending life expectancy will solve only part of the problem.

– Art Haupt

SPEAKING GRAPHICALLY

Average Annual Growth of Elderly Population in More Developed and Less Developed Countries



The world's population aged 65 and over is currently growing at a rate of 2.4 percent annually, the U.S. Census Bureau reports. This increase is substantially faster than the rate for global population as a whole (1.7 percent) and is ascribable to improvements in health care and public health and economic development. (Higher birth rates 65 or more years ago are also a contributing factor.) As a result, as of 1987, there are 290 million elderly on earth, about 6 percent of world population.

From *An Aging World* (International Population Reports Series P-95, No. 78)

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Population State(s) of the Union

State growth patterns shifted a little in 1987, though many recognizable trends continue. The accompanying table ranks the states on both the percent change in population from 1986 to 1987 and the actual amount of gain or loss.

These figures come from the newly released Census Bureau population estimates for 1987. Texas, which had been among the high-growth leaders (along with California and Florida) saw its rate of population growth dwindle from 1986 to 1987. The Lone Star State grew by only 100,000, still enough to have it rank sixth among states in terms of numbers added, but well off its 300,000-per-year clip of the early 1980s before the calamitous "oil bust."

It is quite likely that Texas actually experienced a net loss of people as a result of moves in and out since natural increase (births minus deaths) averages about 180,000 each year and the state's net growth of 100,000 thereby implies out-migration of 80,000.

California and Florida continued to be growth leaders, with the Golden State adding more people in 365 days – a hefty 662,000 – than four states have in *total* population. The Sunshine State added 329,000 and, with retirement migration an important part of Florida's growth, that increase can be expected to continue.

Continuing a trend, the so-called "Rust Belt" of Northeastern industrial states fared moderately well in population growth. It was mostly the North Central and Mountain states that suffered population losses.

Something of a surprise among the growth leaders is New Hampshire, which ranked third in terms of rate of growth, though the rocks and ice of the Granite State seem almost out of place in the company of such Sunbelt heavyweights as Arizona and Florida. New Hampshire, however, has experienced explosive growth in the southern sector near Manchester and Portsmouth, which have grown in their own right and as part of the encroachment north of the Boston metro area.

If that favorite statistical parlor trick of populationists – doubling time "at present rates" – were applied to these states, Nevada could expect to double its population in 17 years, Arizona in 21 years, and New Hampshire in 24 years. In real life, demographic trends are usually subject to change.

To prepare these current state estimates, the Census Bureau relies upon statistical methods which utilize data on school enrollment, births and deaths, tax returns, and other indicators.

– C.H.

1987 State Populations as Estimated by Census Bureau

State ranked by absolute change	1987 (000s)	1986 (000s)	% change	Absolute change (000s)	State ranked by % change*	% change
1 California	27,663	27,001	2.5	662	1 Nevada	4.1
2 Florida	12,023	11,694	2.8	329	2 Arizona	3.3
3 Georgia	6,222	6,100	2.0	122	3 New Hampshire	2.9
4 Virginia	5,904	5,795	1.9	109	4 Florida	2.8
5 Arizona	3,386	3,279	3.3	107	5 California	2.5
6 Texas	16,789	16,689	0.6	100	6 Georgia	2.0
7 North Carolina	6,413	6,331	1.3	82	7 Virginia	1.9
8 Washington	4,538	4,463	1.7	75	8 Delaware	1.7
9 Maryland	4,535	4,461	1.7	74	9 Hawaii	1.7
10 Michigan	9,200	9,139	0.7	61	10 Washington	1.7
11 Tennessee	4,855	4,800	1.1	55	11 Maryland	1.7
12 New Jersey	7,672	7,625	0.6	47	12 New Mexico	1.4
13 South Carolina	3,425	3,381	1.3	44	13 South Carolina	1.3
14 Pennsylvania	11,936	11,894	0.4	42	14 North Carolina	1.3
15 Nevada	1,007	967	4.1	40	15 Vermont	1.3
16 Missouri	5,103	5,064	0.8	39	16 Maine	1.3
17 Ohio	10,784	10,748	0.3	36	17 Tennessee	1.1
18 Alabama	4,083	4,050	0.8	33	18 Rhode Island	1.1
Minnesota	4,246	4,213	0.8	33	19 Utah	1.0
20 Illinois	11,582	1,551	0.3	31	20 Colorado	0.9
21 New York	17,825	17,795	0.2	30	21 Alabama	0.8
Colorado	3,296	3,266	0.9	30	22 Oregon	0.8
New Hampshire	1,057	1,027	2.9	30	23 Minnesota	0.8
24 Indiana	5,531	5,503	0.5	28	24 Missouri	0.8
25 Wisconsin	4,807	4,783	0.5	24	25 Arkansas	0.7
26 Oregon	2,724	2,702	0.8	22	26 Kansas	0.7
27 Massachusetts	5,855	5,834	0.4	21	27 Michigan	0.7
New Mexico	1,500	1,479	1.4	21	28 New Jersey	0.6
29 Connecticut	3,211	3,193	0.6	18	29 Texas	0.6
Hawaii	1,083	1,065	1.7	18	30 Connecticut	0.6
31 Arkansas	2,388	2,371	0.7	17	31 Indiana	0.5
Kansas	2,476	2,459	0.7	17	32 Wisconsin	0.5
33 Utah	1,680	1,664	1.0	16	33 Massachusetts	0.4
34 Maine	1,187	1,172	1.3	15	34 Pennsylvania	0.4
35 Delaware	644	633	1.7	11	35 Ohio	0.3
36 Rhode Island	986	975	1.1	11	36 Illinois	0.3
37 Vermont	548	541	1.3	7	37 New York	0.2
38 Kentucky	3,727	3,726	0.0	1	38 South Dakota	0.1
39 Mississippi	2,625	2,624	0.0	1	39 Mississippi	0.0
40 South Dakota	709	708	0.1	1	40 Kentucky	0.0
– Dist. of Columbia	622	625	−0.5	−3	41 Nebraska	−0.3
41 Idaho	998	1,002	−0.4	−4	42 Idaho	−0.4
42 Nebraska	1,594	1,598	−0.3	−4	– Dist. of Columbia	−0.5
43 North Dakota	672	679	−1.0	−7	43 Iowa	−0.6
44 Alaska	525	532	−1.3	−7	44 Louisiana	−0.8
45 Montana	809	817	−1.0	−8	45 Montana	−1.0
46 Iowa	2,834	2,850	−0.6	−16	46 Oklahoma	−1.0
47 Wyoming	490	507	−3.4	−17	47 North Dakota	−1.0
48 West Virginia	1,897	1,917	−1.0	−20	48 West Virginia	−1.0
49 Oklahoma	3,272	3,306	−1.0	−34	49 Alaska	−1.3
50 Louisiana	4,461	4,499	−0.8	−38	50 Wyoming	−3.4

Source: U.S. Census Bureau news release CB87-205, Dec. 30, 1987.

*States ranked by unrounded percent change.

Demography Means Business

In PRB's new *Population Bulletin*, "Demographics: People and Markets," co-authors Thomas W. Merrick and Stephen J. Tordella explain in detail current U.S. population trends – how they affect business and how business has taken them into account in planning marketing and product development.

To assist business, a commercial data industry has grown up providing a variety of customized services and statistical products. For example, one demographic data vendor subdivides the nation into 500,000 neighborhoods, each neighborhood fitting one of 40 socioeconomic categories such as "Gold Coast," "Shotguns & Pickups," "New Melting Pot," and "Golden Pond" – vital information for any business planning to market in those neighborhoods.

The *Bulletin* also includes a series of case studies: for example, how General Motors analyzed worker needs to minimize layoffs, and how a supermarket analyzed its customer base. As Merrick and Tordella point out, in the 1980s as never before, product design and marketing must "be tailored to the tastes and buying power of specific, often disparate, subgroups in the consumer population." And demographic information is essential to identify the "increasingly diverse consumer groups that constitute the modern marketplace."

Merrick is president of PRB; Tordella is general manager of Decision Demographics, PRB's demographic analysis and consulting firm.

– A.H.

Copies of Merrick and Tordella's 48-page *Population Bulletin* (Vol. 43, No. 1), "Demographics: People and Markets," can be ordered from PRB, Circulation Dept., P.O. Box 96152, Washington, D.C. 20090-6152, with checks payable to PRB. Prices are: $4.00 per single copy; 2-10 copies, $3.00 each; 11-50 copies, $2.50 each; over 50, $2.00 each. Orders for $50 or less must be prepaid and include $1.00 for postage and handling.

Marriage Data Not Vital?

Collection of national marriage and divorce data – two fundamental components of vital statistics -- may be suspended in April 1988 by the U.S. National Center for Health Statistics (NCHS).

Red ink is the reason. NCHS, like other government agencies, has been constrained to trim its programs to comply with new funding reductions, as the federal government endeavors to whittle down, piecemeal, the vast budget deficit.

Marriage and divorce data are vital statistics – numbers that measure (in the UN's words) "all the events which have to do with an individual's entrance into or departure from life, together with changes in civil status which may occur to him during his lifetime."

NCHS is the principal federal collector and disseminator of these statistics. Since marriages and divorces have an impact on the dynamics of a population, marriage and divorce statistics are used to project future Social Security payments, which hinge in part on how many spouses exist as potential recipients of survivors' benefits. The statistics are also used by the Dept. of Defense (to estimate the armed forces' marital characteristics as they affect personnel support, pensions, etc.); the Dept. of Health and Human Services (to anticipate families and hence demand for AFDC payments) and the Federal Reserve Board (to project demand for housing mortgages).

Nongovernment users comprise housing and other industries affected by marriage, as well as the demographic community. A summary of NCHS's most recent vital statistics appears each month in *PT* (see "Population Update," page 9).

Like most government agencies, the Hyattsville, Md.-based statistical agency, which is part of the U.S. Public Health Service, spent most of 1987 coping with budget strictures. The decisive blow came after the Oct. 19 stock market crash, when the executive-legislative budget summit decreed (among many budget cuts designed to bolster national and world confidence) a further 4-percent reduction ($2.5 million) in NCHS's Fiscal Year 1988 budget.

To absorb this reduction, NCHS has allotted only $180,000 to collect marriage and divorce data during FY 1988. About $540,000 a year is normally needed to contract the states to provide NCHS with complete marriage and divorce data.

The $180,000 would allow data collection during the first four months of 1988, allowing the agency to complete its state data through the end of calendar year 1987. If the budget situation has not improved by April 1988, NCHS officials will have to make a final decision as to whether the program itself can be continued (which would cost an additional $360,000).

One alternative might be to try to persuade another institutional user of marriage and divorce statistics, such as the Social Security Administration, to take over data collection.

Given sufficient funding, NCHS would prefer to keep all of its statistics programs going. Without this option, it has chosen to sacrifice marriage and divorce rather than other collection and survey programs it operates.

Marriage and divorce statistics have been compiled under the aegis of the Public Health Service for the past 30 years, and attempts to gather consistent national marriage and divorce data go back to the beginning of the century. To halt data collection would leave a gap in the U.S. statistical record. Filling the gap at a later date might be possible, but not easy.

Why do state marriage and divorce data cost half a million dollars? These data are routinely filed at the local level and compiled by health departments in each state. The sticking point, however, lies in getting the data *from* the states to the federal level.

Unless motivated by outside funding, the quality control states maintain over their marriage and divorce data is not sufficient for compiling uniform national statistics. NCHS must contract with (and pay) the states on a calendar-year basis to provide detailed data

Continued on page 8

SURVEY REPORT

Senegal

Senegal, situated on the west coast of Africa, has a history of high fertility and high infant mortality. Preliminary results of the 1986 Demographic and Health Survey (DHS), administered by the Institute for Resource Development, Columbia, Md., indicate a slight decline in the birth rate and reveal a high prevalence of child health problems associated with poor sanitation and nutrition.

Senegal's 7.1 million people (1987 estimate) are unevenly distributed throughout that country's dry, flat landscape. Some 40 percent of the population is urban, and about one-half of these urban residents live in the capital, Dakar. Heavy rural-to-urban migration has been encouraged by the high population growth rate – 2.8 percent annually – and a poor standard of living in the countryside. With about 70 percent of the labor force dependent on agriculture, a drought-related drop in the yields of groundnuts and other cash crops contributed to the rural exodus and to growing unemployment in the capital.

The 1986 survey of family planning and child health collected information from 4,415 women 15 to 49 years of age, and measured the height and weight of their children between 6 and 36 months. The findings suggest that fertility may have fallen slightly since 1978. The Senegal DHS recorded a total fertility rate (TFR) of 6.5 average births per woman during the 1981 to 1986 period, down from a TFR of 7.1 in the 1978 Senegal World Fertility Survey (WFS). The DHS also found that women at the end of their childbearing – age 45 to 49 in 1986 – had borne 7.4 children on average, further evidence of a slight decline in births among the younger women.

UN photo 153469/John Isaac

Senegalese woman and child.

Senegalese women marry young. The average age at first marriage is only 16.1, according to the 1986 DHS, and family planning within marriage is not widely accepted. In 1986, 11.7 percent of the currently married women 15 to 49 used some form of birth control, but only 2.7 percent used a modern method. While this is a large increase over the 3.9 percent rate of contraceptive use recorded in the 1978 WFS, almost three-quarters of the gain was due to a higher reported use of abstinence and withdrawal. In fact, 29 percent of the married women had relied on abstinence some time in the past, while only 6 percent had ever used a modern method. Current use of the pill and the IUD increased fourfold between 1978 and 1986, but the 1986 level is still too low to have much effect on fertility rates.

The knowledge of various contraceptive methods did increase significantly between 1978 and 1986. For example, only 18 percent of the married women said they were familiar with the pill in 1978, while 51 percent knew about it in 1986. In general, knowledge of modern contraceptives grew from 20 to 68 percent of married women, while knowledge of traditional methods increased from 50 to 90 percent, between 1978 and 1986.

When asked why they did not use contraceptives, 34 percent of the women said they were trying to become pregnant, and 19 percent said religious proscriptions against birth control discouraged them from using contraceptives.

The preliminary DHS report also showed that 43 percent of the children under age 5 had vaccination cards, according to their mothers, although interviewers were able to verify the existence of cards for only 23 percent of the children. Up to 77 percent of the children under age 5 living in the Dakar region had vaccination cards (46 percent verified by interviewers), in marked contrast to the rest of the country.

– *M.K.*

DEMOGRAPHER'S PAGE

The Working Poor

by William O'Hare

To judge by news reports and speeches by some officials, the prevailing sentiment today concerning U.S. poverty is that people who work are not poor and most poor people live in poverty because they don't or won't work.

This image of the U.S. poor is vastly different from the predominant view just two decades ago, when the federal government's War on Poverty conveyed the picture of working men and women, primarily in Appalachia and the South, who simply did not earn enough to lift their families out of poverty.

However the media image of poverty may have changed, the same conditions still prevail for many of the U.S. poor. In point of fact:

- The poverty population was 32.4 million in 1986.*
- Over 10 million of these were "working poor" – that is, people in the labor force who were either working or looking for work in 1986 yet failed to earn enough to lift themselves or their family above the government's poverty threshold (see Table 1). Throughout the 1980s there have been almost as many poor adults (age 15 and over) who were in the labor force as there were poor adults who didn't work or look for work.
- The great majority of these working poor worked during most of the year. Only 11.7 percent were unemployed more than 27 weeks during 1986.
- Nearly 3 million of the working poor group worked full-time all year yet remained poor.
- Between 1976 and 1986, the number of working poor has grown by 35 percent.
- Although the welfare mother may be the media "symbol" of poverty, in fact welfare mothers number less than 4 million – about one-fifth of poor adults.

Economic Changes

In part, the composition of the poor reflects the deterioration of the national economy, a deterioration that culminated in the recession of 1981-1982. Although the economic recovery since then has reduced the unemployment rate by nearly 30 percent, it has done very little to reduce the number of working poor. The unemployment rate fell from 9.6 percent in 1983 to 7 percent in 1986, the total poverty population decreased from 35.3 to 32.4 million, and the number of poor who worked or looked for work dropped from 11.3 to 10.1 million during the same period. In other words, while the unemployment rate was dropping by 27 percent, the number of working poor fell by about 11 percent and the total number of poor declined by 8 percent.

This kind of labor market deterioration for those at the low end of the occupational spectrum is a key component in the neo-progressive explanation put forth by analysts such as William J. Wilson for the continued high levels of poverty, particularly in our inner cities. The deterioration of the labor market for unskilled workers, however, is a point which has been missing from conservative analyses of poverty and public policy such as Charles Murray's 1984 book, *Losing Ground*.

Table 1. The Working Poor: 1966 to 1986

(figures in 1000s)

Year	(1) Poor who worked during the year	(2) Poor who were unable to find work	(3) Working poor (col. 1 + col. 2)	(4) Poor not working or not looking for work	(5) Total working age* poor
1986	8,864	1,203	10,067	11,285	21,352
1985	9,112	1,255	10,367	11,587	21,954
1984	9,104	1,426	10,530	11,716	22,246
1983	9,440	1,849	11,289	12,176	23,465
1982	9,119	1,880	10,999	11,813	22,812
1981	8,631	1,167	8,798	11,462	21,260
1980	7,792	833	8,625	10,892	19,517
1979	6,545	438	6,983	9,924	16,907
1978	6,599	482	7,081	9,833	16,914
1977	6,459	553	7,012	9,872	16,864
1976	6,555	605	7,160	9,834	16,994
1975	6,697	563	7,260	10,040	17,300
1974	6,376	412	6,788	9,344	16,132
1973	6,186	266	6,452	8,976	15,428
1972	6,329	326	6,655	9,738	16,393
1971	6,836	347	7,183	10,014	17,197
1970	6,716	252	6,968	10,013	16,981
1969	6,469	177	6,646	9,642	16,288
1968	7,146	162	7,308	9,365	16,673
1967	7,929	188	8,117	10,286	18,403
1966	8,085	215	8,300	10,194	18,494

Sources: U.S. Bureau of the Census, Current Population Reports, Series P-60, selected numbers.

*those age 14 and older through 1978 and age 15 and older from 1979 to 1986.

*The poverty index was created by the U.S. government in 1964 and is updated each year to adjust for inflation. In 1986, a family of four with an income below $11,203 was considered poor.

William O'Hare is Director of Policy Studies at PRB

Unemployment

The number of poor with long spells of unemployment has risen substantially since 1978 and the number of working poor with very short spells of unemployment has fallen slightly (by 9 percent). The number of working poor with more than 27 weeks of unemployment increased by 153.8 percent, from 464,000 in 1978 to 1,178,000 in 1986; the number with unemployment of 15 to 26 weeks increased by 88 percent. The number with short periods of unemployment (1-4 weeks) declined by 9 percent.

What about the "nonworking" poor – those who do not work or look for work and are therefore not part of the labor force? The most common reasons for not working are: being ill or disabled, being retired, and keeping house. Census Bureau surveys of poor adults have shown, however, that being unable to find work has become a much more prominent reason over the past two decades (see Table 2).

Table 2. Reasons Given by the Poor for Not Working, 1966-1986

Reasons for not working	Figures in 000s* 1966	1978	1984	1986	Change 1978-1986 No.	Percent
Ill or disabled	2,027	2,334	2,737	2,671	337	14.4
Keeping house	4,692	3,571	4,128	3,849	278	7.8
Going to school	1,645	2,147	2,280	2,079	−68	−3.2
Unable to find work	215	482	1,426	1,203	721	149.6
Retired**	1,763	1,247	2,081	2,216	969	77.7
Other		498	463	438	−60	−12.0

Sources: U.S. Bureau of the Census, Current Population Reports, Series P-60, Nos. 95, 124, 149 and 157.

* those age 14 and older through 1978 and age 15 and older from 1979 to 1986.
** Includes retired and other in 1966.

Why the Increase?

A number of factors have contributed to the plight of the working poor. For example, structural changes in the U.S. economy related to a changing global economy have reduced the number of well-paid secure jobs for unskilled workers.

Increased automation of manufacturing processes has lowered the proportion of the labor force in high-paying industrial jobs, and many companies have moved labor-intensive production operations overseas where labor is cheaper.

The Demographic Factor

The surge of new workers entering the job market in recent years is a demographic factor further exacerbating the situation. This surge has been due to two major trends: The baby boom generation that was born in the late 1940s and 1950s produced a record number of new labor market entrants in the 1970s and early 1980s; a major rise in the labor force participation of women, particularly women with children, has further crowded the pool of potential workers. A large number of the working poor are marginal workers who can only find temporary or part-time positions.

Public policy has also played a role in worsening the situation of the working poor. The taxes paid by the poor have increased in recent years because the increase in the tax threshold has not kept pace with inflation or the increase in the poverty threshold.

10 million U.S. poor are "working poor": people either working or looking for work

In 1976, the point at which people had to start paying federal income tax on their earnings was 19 percent above the poverty threshold, but in 1986 the income tax threshold was 17 percent *below* the poverty level. This means that 10 years ago a poor family could earn as much as 20 percent more than the poverty threshold without having to pay federal income tax. In 1986, by contrast, many people had to pay taxes on earnings that did not even raise their income to poverty level.

Also the minimum wage has lost more than a quarter of its purchasing power since it was increased to $3.35 an hour in 1982. A person working in a minimum wage job is in a far different economic position than a person working in a unionized blue-collar job. In 1984, a person working 40 hours a week 52 weeks a year at minimum wage earned only 62 percent of the poverty threshold for a family of four ($11,203).

Government curtailment of job training programs, educational assistance, and public service employment, also eliminated possible solutions to the employment problems faced by many.

What Can Be Done?

A number of proposals and policy changes have been put forward to provide the unemployed and the marginally employed with job opportunities that will enhance the probability that

Continued on next page

Demographers Page

Continued from preceding page

recent tax reform legislation will eliminate federal income tax on the poor but not state or local income taxes.

2. Increase the Earned Income Tax Credit in order to help low-income workers keep more of their earnings.

3. Provide free or subsidized medical insurance to low-income workers.

4. Raise the minimum wage.

5. Increase and extend unemployment coverage.

6. Expand programs which allow welfare benefits to be used to subsidize wages in private sector jobs.

7. Halt the decline in educational assistance and job training programs.

Unfortunately, most of these measures would require increased federal expenditures (or lost revenues), an unlikely prospect in a time of budget austerity. Like many issues, this issue may have to wait until more of a national consensus evolves concerning the desirability or necessity of assisting this group of over 10 million Americans. □

Data Not Vital?

Continued from page 4

(e.g., the married or divorced persons' age or number of prior marriages), conduct follow-ups, and provide NCHS with copies of the data tapes and records.

Forty-two states are currently contracted to provide detailed marriage data; 31 provide detailed divorce data. (The remainder of the states still provide summary data.)

"It's a reasonable concern for agencies to periodically rethink their priorities," said Katherine Wallman, Executive Director of the Council of Professional Associations on Federal Statistics, commenting on the proposed new budget cut. "It's unfortunate when a budget crisis causes the cutting of a program before careful examination can be made. Unfortunately, [NCHS] has been forced to make a decision before their evaluation is complete. . ."

Theodore D. Woolsey, a former NCHS director, considers it "a great disappointment for the United States to cease 20 years of marriage and divorce data collection, when every other country in the Western world collects it."

— *A.H.*

Correction

In the table accompanying the article "Projecting a World of 10.4 Billion" (*PT*, January 1988), an editing error caused Bangladesh and Vietnam to be omitted from the World Bank's latest population projections for 2100. (As a result, also-rans Japan and Tanzania appeared in the projection table.)

A corrected version of the table appears below.

Projected Population of the 15 Most Populous Countries (in Millions) in 1985 and 2100

1985 ranked by pop. size		2100 ranked by pop. size*		
1. China	1,040	1. China	1,683	(2000)
2. India	765	2. India	1,678	(2010)
3. USSR	277	3. Nigeria	529	(2035)
4. U.S.A.	239	4. Pakistan	395	(2035)
5. Indonesia	162	5. USSR	385	(2020)
6. Brazil	136	6. Indonesia	363	(2010)
7. Japan	121	7. Bangladesh	295	(2025)
8. Bangladesh	101	8. Brazil	292	(2010)
9. Nigeria	100	9. U.S.A.	279	(2020)
10. Pakistan	96	10. Ethiopia	204	(2040)
11. Mexico	79	11. Mexico	197	(2010)
12. Vietnam	62	12. Vietnam	167	(2015)
13. W. Germany	61	13. Iran	157	(2020)
14. Italy	57	14. Philippines	137	(2015)
15. U.K.	56	15. Egypt	132	(2020)

Source: World Populations 1987-88: Short- and Long-Term Estimates by Age and Sex with Related Demographic Statistics, World Bank (forthcoming).

*Year that country achieves replacement level fertility is given in parenthesis.

Who's Having Babies?

One out of every 10 U.S. babies was born to a foreign-born mother in 1986 – representing 7.4 percent of all U.S. women age 18 to 44 – according to a newly released Census Bureau report. Based on the June 1986 Current Population Survey of 57,000 households, the study found that foreign-born women had much higher fertility than native-born women. About one in 10 foreign-born women age 18 to 44 had given birth within a year of the survey, compared to only one out of 15 native-born women.

This survey is the first of the annual fertility reports to include birth rates and lifetime birth expectations for foreign-born women and presents comparative data collected in the June 1983 CPS but not previously published. The 1986 CPS also tabulated the age at first marriage, number of children ever born, the birth dates of the first- and last-born children, and birth expectations for foreign-born and native-born U.S. women of reproductive age.

Among foreign-born women, Mexican immigrants had the highest fertility, followed by women from other Latin American countries, Asian-born women, and, finally, European-born women. Mexican-born women accounted for 31 percent of all the births to foreign-born mothers in 1986. Their birth rate was 142 births per 1,000 Mexican-born women age 18 to 44.

By contrast, there were only 54 births per 1,000 European-born women, lower than the rate for native-born women, 68 per 1,000. The rate for women born in Asia was 105 per 1,000.

One of the most interesting questions the Census Bureau survey asks concerns birth expectations data, sometimes used to forecast future fertility. Women aged 18 to 34 are asked how many children they expect to have in their lifetime. Since 1979, the average number of births women expect has been 2.0 or 2.1 children, although the total fertility rate, a synthetic measure of lifetime fertility based on current birth rates, has been lower (1.8 children) for that entire period. Foreign-born women expect to have slightly larger families, with 2.3 children considered likely.

The reliability of birth expectations

data in predicting future fertility is affected not only by how serious respondents are about realizing their expectations and by unexpected marital disruptions, but also by the limitation that the data cannot include women who are uncertain about future birth expectations or who fail to respond to the question.

In 1986, 15 percent of the survey sample were uncertain about future childbearing, and another 11 percent failed to respond. Young women, who will be responsible for most of the future U.S. births, are least likely to state the actual number of births they expect to have.

The percentage of women in their 30s who have never had children has increased by about 50 percent since 1976. By 1986, 24 percent of women 30 to 34 years old and 17 percent of women 35 to 39 years old had never borne a child. Analysts think that childlessness will remain high for this group, and that, contrary to the women's earlier expectations, many will reach the end of their childbearing years without having had a child.

Other highlights of the report include:

- About 50 percent of new mothers were back in the labor force within a year after giving birth – up from 38 percent in 1980 and 31 percent in 1976.
- New mothers were more likely to be working if they were over age 30 and had a college education.
- Women aged 30 to 34 were the only group showing an increase in fertility since 1985 – from 70 to 79 per 1,000.
- Overall, Hispanic women had significantly higher fertility rates (106 per 1,000) than blacks (78 per 1,000) or whites (68 per 1,000).
- About 12 percent of all 1986 births were to Hispanic mothers (both foreign- and native-born) although they constituted only 8 percent of all women 18 to 44 years old.
- About half of recent black mothers were unmarried compared with 23 percent of Hispanic and 12 percent of white mothers.

– M.K.

Copies of the report, *Fertility of American Women*, June 1986, Series P-20, available from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

SOFTWHERE

These days Lotus 1-2-3 is far from alone in the personal computer spreadsheet market. Imposing new programs like Quattro and Excel have joined a crowded field that already includes Silk, VP-Planner, and Twin. It's now possible to buy a spreadsheet program that performs much like Lotus for $150 $100 $75.

Even cheaper is As Easy As, one of several spreadsheets distributed through "shareware" channels such as computer bulletin boards.

As Easy As 3.0 offers powerful statistical functions and a 256 × 1,024 cell matrix, as well as Lotus-like capabilities of graphics and data sorting. Its interface is attractive, macros are easier to create than 1-2-3's, and the program can share data and many (though not all) formulas with Lotus. Most engaging of all is As Easy As's promptness (15 seconds) in booting up the program from a single floppy disk.

Shareware sometimes comes with a few rough edges, and As Easy As seems less than happy with huge (over 100 kilobyte) data files. But for personal statistics analysis and life tables, it offers a lot of number crunching for a $30.00 registration fee. For IBM PCs and compatibles. Contact: Trius, 15 Atkinson St., Lynn, Mass. 01905.

– A.H.

POPULATION UPDATE

Estimated United States Population:

As of October 1, 1987	244,425,000
As of October 1, 1986	242,222,000

The above estimates, the latest available, include armed forces overseas and are from U.S. Bureau of the Census, *Current Population Reports*, Series P-25, No. 1014.

Estimated World Population:

As of February 1988	5,084,000,000
Annual growth	87,000,000

Estimated by extrapolation from the mid-1987 population on PRB's *World Population Data Sheet*.

Latest Provisional Statistics for the U.S.: September 1987

	12 months ending with September					
	Number		Rate			
Item	1987	1986	1987	1986	1985	1984
Live births	3,788,000	3,741,000	15.6	15.6	15.8	15.5
Deaths	2,113,000	2,097,000	8.7	8.7	8.8	8.6
Natural increase	1,675,000	1,644,000	6.9	6.9	7.0	6.9
Marriages	2,415,000	2,390,000	10.0	9.9	10.2	10.5
Divorces	1,161,000	1,161,000	4.8	4.8	5.0	4.9
Infant deaths	- 37,800	39,200	10.0	10.5	10.5	10.7
Population base (in millions)			242.7	240.4	237.8	235.6

Note: Rates are given per 1,000 population, except for infant deaths, which are given per 1,000 live births.

Source: *Monthly Vital Statistics Report* (Vol. 36, No. 9) from the National Center for Health Statistics.

Mapping China's Population

The just-released *Population Atlas of China*, compiled and edited by China's Census Office and published by Oxford University Press (New York, N.Y., phone 1-201-796-8000), fully deserves the oft-used description "awesome."

A volume imposing enough to constitute a coffee table, not simply lie on one, the 15 × 21 inch, 10-pound atlas includes 137 huge, demographically keyed maps in spectacular color, plus 32 pages of detailed statistical tables for provinces, counties, cities, and county administrative units.

Data are derived from the 1982 Third National Census. The high demographic resolution of the maps (down to the county level in many cases) and their broad range of subject matter (distribution, ethnicity, sex and age structure, education, and employment) is all the more remarkable considering how little was known of China's demography even at the beginning of this decade.

Demographers will be particularly intrigued by the population distribution maps. Not content with merely presenting 1982 data, the *Atlas* offers distribution dot-maps going back to the Western Han Dynasty (A.D. 2). Population pyramids by single years for each province adorn another map. Another, yet more unusual dot-map shows the distribution of population age 100 and over!

An introductory essay provides background on China's demography and socioeconomic situation. The effects of the natural environment upon population distribution are discussed, along with the history of agricultural development. As a final touch, a clear plastic overlay is included with the Atlas, imprinted with city and county locations to enable the peruser to find these places on the Atlas's colorful but complicated maps.

This sumptuously prepared demographic feast (price: $199.95) is likely to become a fixture on the shelves of many libraries and of students of China's population.

—*C.H.*

TAKE A NUMBER

America On the Move Again: The old saw that "one in five Americans moves every year" seems to be true once again. The Census Bureau's Current Population Survey reported that, between March 1984 and March 1985, a record 46.5 million Americans changed their residence. This reverses a long term decline in the trend. From March 1983 to 1984, 17.3 percent of Americans moved, but that proportion jumped to 20.2 in 1984-1985. Most of this increase was due to shorter-distance moves (same county), possibly signifying delayed moves due to higher mortgage interest rates in the earlier part of the decade. The West region was the biggest gainer in 1984-1985, with a net gain of 260,000 as a result of internal migration, while the Midwest and Northeast lost a net of 211,000 and 209,000, respectively. The South recorded a net gain of 160,000, but this survey result was not statistically significant.

Here and There . . . The etymological root of the statistical terms we use every day may be something we don't often think about, but . . . did you know that "statistics" comes from a form of "state secrets," from the Greek *statistik*, "political numbers" having to do with affairs of state, especially the potential size of one's (or one's enemy's) army? . . . "fertility" is rooted in the Latin *ferre*, "to bear" . . . "infant" is also from Latin, *infans*, "incapable of speech" . . . Latin also gave us "projection" from *proicere*, "to throw forward" . . . "number" shares its heritage with "nimble" which is variously rooted in the Old English *numol*, "holding much" and the Latin *numerus*, "number," perhaps suggesting that those using statistics were suspected of being a bit too quick or nimble right from the start . . . And we heard this on drive-time radio just the other day: "You can't trust projections, especially when they're for the future."

—*C.H.*

How Did They Do That? A new Census Bureau publication describes how the Bureau selects topics for inclusion in the decennial census and how the questions are tested well in advance. The counting of America every 10 years (the 1990 Census is only 14 months away) is designed to meet a multiplicity of national and state needs, both in content and publications. Now you can read all about it. For a copy of "The Content Development Process for the 1990 Census of Population and Housing," call (301) 763-1516.

ADDENDA

From *The World According to Carp* by Richard Guindon – Permission, King Features

I THINK I'LL DIVORCE ORVIL
I'M GOING TO GET A CAT.
I'M GOING TO BEGIN MY NOVE
MAYBE IF I CALLED MUFFIE AND BEGGED
NEXT, I'LL
TUNA FOR LUNCH

It's exhausting to think about it, but there are millions of people, and each of us has a plan every day.

CURRENT READINGS

PRB welcomes materials on population topics for possible inclusion in Current Readings. Publishers may address review copies to Book Review Editor, POPULATION TODAY, Population Reference Bureau, 777 14th St., N.W., Washington, D.C. 20005.

GAINING PEOPLE, LOSING GROUND: A Blueprint for Stabilizing World Population, by Werner Fornos. Washington, D.C.: Population Institute, 1987. 121 pages. $10.95 cloth; $4.95 paper. ISBN 0-9619165-1-6.

This short book is a well-written plea for the United States to "rejoin the international partnership it once led" in tackling the world's "population crisis" penned by one of the most tireless advocates of political action to deal with that crisis.

Population Institute President Werner Fornos asserts that the Third World's commitment in the 1980s to taming population growth, and its progress in doing so, can be credited to U.S.-led external aid and counsel during the 1960s and 1970s.

Now that very progress, Fornos writes, is threatened by the U.S. policy reversal announced at the 1984 Mexico City International Population Conference and its subsequent cutoff of contributions to the UNFPA and IPPF and reductions in population aid.

Fornos provides a useful, if unreferenced, overview of the pressures created by rapid population growth in the some 100 developing countries lodged in a "holding pattern" in the middle stage of the demographic transition, with still-high birth rates and lowered death rates. For a closer look, he singles out 20 nations, from Bangladesh to Zaire, which account for 69 percent of current world population growth.

He cites Population Institute estimates that it would cost $33 billion from 1988 to 1998 to supply family planning services to the more than 400 million Third World people which research suggests want such services but who lack access or money to secure them. Such an expenditure, he projects, would reduce fertility rates rapidly enough to hold global population to just over 7 billion in 2030 – 3.2 billion less than the total shown by current projections. To achieve this would require $1 billion of new funds annually starting in 1990, mostly from the international donor community, with the U.S. share set at about $600 million.

Fornos's proposal would also require a sharp stepup in recent U.S. population aid. (Population aid is allocated $197.9 million in the omnibus continuing resolution budget for Fiscal Year 1988 passed by Congress in December.) He admits that money and the U.S. alone can't solve the problem of rapid world population growth. But he argues that the U.S. has a responsibility to rejoin the battle to help avert the ravages that Third World overpopulation and poverty will cause if action is delayed.

Fornos says little that most *PT* readers would find new. But his book is a generally useful, nontechnical summary of the challenge and feasible solutions and deserves attention.

– Jean van der Tak

ASIA-PACIFIC REPORT 1987-88, edited by Charles E. Morrison. Hawaii: East-West Center, 1987. 84 pages. $10.95. ISBN 0-86638-098-1.

Last year's edition of this regional status report (see *PT*, April 1986) proved a good reference for policymakers and students needing a reliable synopsis or general overview. This year it's even better.

The first section covers the political and economic activities of this region of 2.7 billion people – a timely focus on mid-1980s changes in the area's diverse military and civilian governments; the course of international relationships ranging from trade conflicts between Japan and the U.S. to armed conflicts in Afghanistan and Kampuchea; and an overview of economic growth patterns.

The second section concentrates on marine policies and the development of the Pacific Ocean nations. This year's issues include the policing of maritime borders, pollution, and fisheries depletion; and the unique development problems presented by the island nations' small size, geographical dispersion, and often limited land-based resources.

Maps are clean and crisp and should blow up easily for overhead projection in the classroom. Sidebars, tables, and figures are liberally used to supplement the text.

– Denise Dowdell

Books Received

ENVIRONMENTAL SCIENCE: A Framework for Decision Making (2nd ed.), by Daniel D. Chiras. Menlo Park, Calif.: Benjamin/Cummings, 1988. 521 pages. $37.95.

FAMILY DEMOGRAPHY: Methods and their Application, edited by John Bongaarts et al. New York: Oxford University Press, 1987. 365 pages. $72.00.

HANDBOOK OF NATIONAL POPULATION CENSUSES: Africa and Asia, by Eliane M. Domschke and Doreen S. Dwyer. Westport, Conn.: Greenwood Press, 1986. 1,032 pages. $125.00.

INTERNATIONAL DIRECTORY OF DEVELOPMENT JOURNALISTS, compiled by United Nations. New York: UN Dept. of Public Information, Div. of Economic and Social Information, 1987. 1,273 pages. $25.00.

INTERNATIONAL WHO'S WHO 1987-88 (51st ed.), by Europa Publications Ltd. London: Europa; (dist. in North America by Gale Research, Detroit, Mich.), 1987. 1,653 pages. $165.00.

SPOTLIGHT

KUWAIT

Population (1987 est.): 1.9 million
Land area: 6,880 sq. mi.
Births per 1,000 pop.: 34
Deaths per 1,000 pop.: 3
Rate of natural increase: 3.2
Total fertility rate: 4.4
Infant mortality rate: 19
Life expectancy at birth: 72
GNP per capita: $14,270
Capital: Kuwait City

by Wendy Patriquin

Kuwait, whose name means "little fortress," is situated at the upper end of the Persian Gulf, bordered by Iraq to the north and west and by Saudi Arabia to the south.

The tiny oil kingdom, smaller than Massachusetts, has several unusual population characteristics, including its vast number of resident foreign workers. Funds for economic development have long been more readily available than the indigenous labor force necessary to achieve it. Consequently, an influx of labor from outside began in the 1950s.

Today native Kuwaitis constitute a minority (42.6 percent) within their own country. The majority of the foreigners are Arabs from neighboring states; other worker groups include Iranians, Indians, and Pakistanis.

The population of Kuwait was only about 50,000 early in the 20th century, when the economy primarily involved fishing. It grew thereafter, and during the last three decades has soared by 950 percent, mostly as a result of migration. In 1957, Kuwait's population stood at 200,000. In 1987, it reached 1.9 million.

Another consequence of migration is that Kuwait's total population has a sex ratio of 132 males per 100 females. This unusual proportion occurs because although the native Kuwaiti population age-sex pyramid has a normal "Mexican hat" silhouette typical of expanding populations, the non-Kuwaiti population structure has a high concentration of males in the working ages.

Another population anomaly: Kuwait has the lowest national crude death rate in the world, 3 deaths per 1,000 population. This remarkable figure is the result of a fertile, young population typical of a less developed nation benefiting from sudden, large-scale health expenditures over the past two decades. Free comprehensive health care was established in 1962; the present 72-year life expectancy at birth is typical of prosperous more developed countries.

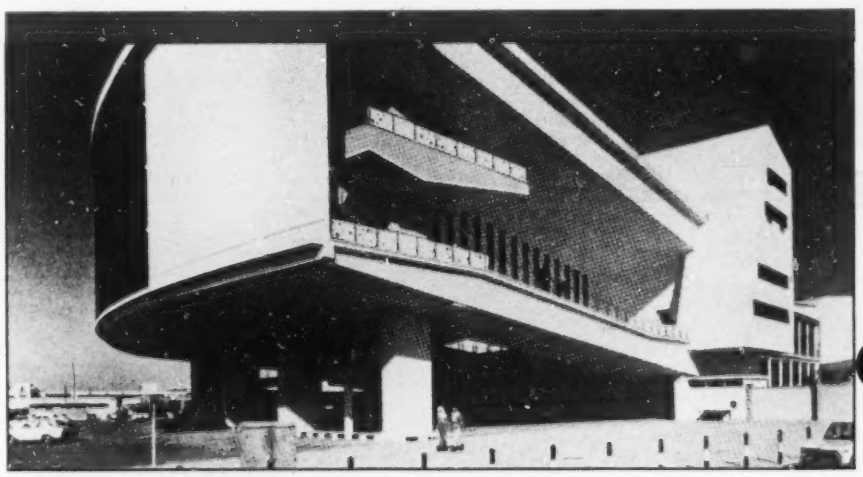
By contrast, Kuwait's fertility is atypically high for a prosperous country – especially one with a GNP per capita higher than the U.S.'s. But when compared to other countries in Western Asia, Kuwait's total fertility rate (TFR) of 4.4 children per woman can be considered moderate.

Whatever pricing problems the oil-producing countries presently face, the huge revenues the national government has derived from petroleum have enabled it to establish a highly developed welfare system, with free education and no personal income taxes. Literacy currently stands at 71 percent, one of the highest in the Arab world.

The government has stated that its population policy is based on the identification of the most suitable population size that will meet the requirements of an expanding economy. The population size and the rate of natural increase are now considered to be too slow. While no family planning programs are known to exist, contraceptive supplies are available commercially.

A large immigrant population can be a source of problems. Kuwait's constitutional monarchy has expressed a desire to reduce the future number of foreign workers and their families. Present population policy calls for maintaining a significant level of immigration as necessary to relieve manpower shortages, but with stricter controls. In order to relieve overcrowding in Kuwait City and nearby areas, where the great majority of the population live, existing urban centers are being enlarged and new ones are under construction.

Despite a small population and land size, Kuwait's strategic location, coupled with vast oil wealth, makes it an important participant in world affairs. Its smallness also makes its close proximity to the Iran-Iraq war a cause for particular national nervousness.



The campus of Kuwait University.